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10/536,684

01/17/2006

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EXAMINER

STEPHENSON, DANIEL P

ART UNIT

PAPER NUMBER

3676

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DELIVERY MODE

02/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |   |                                      |  |
|------------------------------|---|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/536,684    | <b>Applicant(s)</b><br>STROUD ET AL. |  |
|                              | <b>Examiner</b><br>DANIEL P. STEPHENSON | <b>Art Unit</b><br>3676              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-11 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8, 12 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 May 2005 and 20 November 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6-8, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amaudric du Chaffaut (US 4,989,679) in view of Webster (US 5,603,386) or the European document to Allen et al. (EP 0209318 A2). Amaudric du Chaffaut (Fig 10, col. 1 lines 11-23, col. 4 lines 1-11, col. 6 line 52-col. 7 line 3) discloses a stabilizer. The stabilizer has an inner part adapted to rotate with the drill string and an outer part adapted to engage the borehole wall, the outer part being rotatable relative to the inner part so that the outer part can remain substantially stationary as the remainder of the stabilizer rotates with the drill string. The stabilizer includes a clutch (discs between 25a and 25b) mechanism connected to the inner part and the outer part. The clutch mechanism can vary the resistance to rotation of the outer part relative to the inner part between a minimum resistance whereupon the outer part can rotate substantially freely relative to the inner part, and a maximum resistance in which the outer part is caused to rotate with the inner part. The variation in resistance between the minimum resistance and the maximum resistance is substantially continuous. The clutch mechanism comprises two annular members with corresponding tapered drive surfaces, and means to move the drive surfaces into and out of engagement. The inner part and the outer part are connected together by bearings (72), including a reservoir of oil surrounding the bearings. The reservoir of oil is

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bordered by at least one movable piston (14), which can act to vary the volume of the reservoir in response to changes in pressure and temperature within the oil. The piston is mounted to the outer part so as to be rotatable relative to the inner part. Amaudric du Chaffaut shows all the limitations of the claimed invention, except, it does not disclose that the stabilizer is part of a drilling apparatus where there is a directional drilling stabilizer located above the stabilizer, and the stabilizer is located above the drill bit, wherein the stabilizer would act as a fulcrum with a ratio of 1 to 2 between the fulcrum and the steering point. Both Webster (Fig. 1A and 1B) and EP '318 (Fig. 1) disclose drilling apparatus wherein there is a stabilizer located between a steering assembly and a drill bit. Each of them would provide a ratio between 1 and 2 for the fulcrum to the steering point. It would have been obvious to one of ordinary skill in the art at the time the invention was made to place the stabilizer of Amaudric du Chaffaut on the assemblies of Webster or EP '318. This would be done to reduce friction on the borehole as taught by Amaudric du Chaffaut.

With regards to claim 12, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add another piston at the lower end of the stabilizer, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Webb et al. (US 4,606,417) in view of Webster (US 5,603,386) or the European document to Allen et al. (EP 0209318 A2). Webb et al. (Fig. 1) discloses a stabilizer. The stabilizer has an inner part adapted to rotate with the drill string and an outer part adapted to engage the borehole wall, the outer part being rotatable relative to the inner part so that the outer part can remain substantially stationary

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as the remainder of the stabilizer rotates with the drill string. The stabilizer includes a clutch (40) mechanism connected to the inner part and the outer part. The clutch mechanism has two annular members with corresponding tapered surfaces. The inner part and the outer part are connected together by bearings (47), including a reservoir of oil surrounding the bearings. The reservoir of oil is bordered by at least one movable piston (75), which can act to vary the volume of the reservoir in response to changes in pressure and temperature within the oil. The piston is mounted to the outer part so as to be rotatable relative to the inner part. Webb et al. shows all the limitations of the claimed invention, except, it does not disclose that the stabilizer is part of a drilling apparatus where there is a directional drilling stabilizer located above the stabilizer, and the stabilizer is located above the drill bit, wherein the stabilizer would act as a fulcrum with a ratio of 1 to 2 between the fulcrum and the steering point. Both Webster (Fig. 1A and 1B) and EP '318 (Fig. 1) disclose drilling apparatus wherein there is a stabilizer located between a steering assembly and a drill bit. Each of them would provide a ratio between 1 and 2 for the fulcrum to the steering point. It would have been obvious to one of ordinary skill in the art at the time the invention was made to place the stabilizer of Webb et al. on the assemblies of Webster or EP '318. This would be done to reduce friction on the borehole.

With regards to claim 12, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add another piston at the lower end of the stabilizer, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

***Allowable Subject Matter***

4. Claims 9-11 are allowed.

***Response to Arguments***

5. Applicant's arguments filed 11/20/07 have been fully considered but they are not persuasive.

6. It is the assertion of the applicant that Chaffaut does not read on the claims since it would ream the wellbore with engagement of the clutch. The examiner respectfully traverses this assertion. The stabilizer of Chaffaut discloses that it would ream in soft rock or if there was a cake of mud on the wellbore. If this is not the case then the blades do not ream the wellbore, and provide a varying resistance.

7. It is the assertion of the applicant that Webb et al. does not disclose two annular members with corresponding tapered drive surfaces. The examiner respectfully traverses this. As seen in Fig. 1 surfaces 41b and 42b are corresponding tapered surfaces.

8. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL P. STEPHENSON whose telephone number is (571)272-7035. The examiner can normally be reached on 8:30 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer Gay can be reached on (571) 272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer H Gay/  
Supervisory Patent Examiner, Art Unit 3676

DPS